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Montana Basin Outlook Report February 1, 1998



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How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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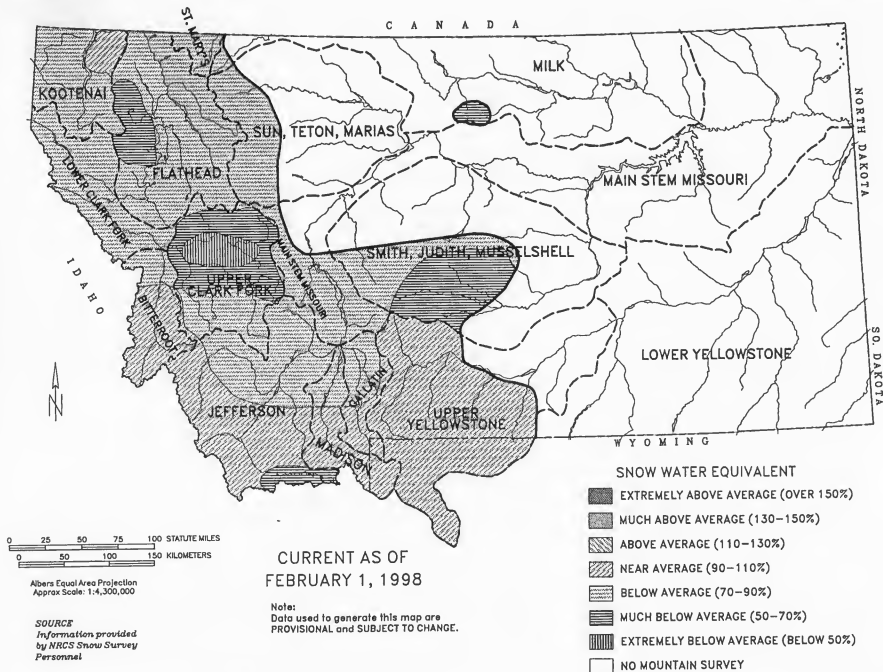
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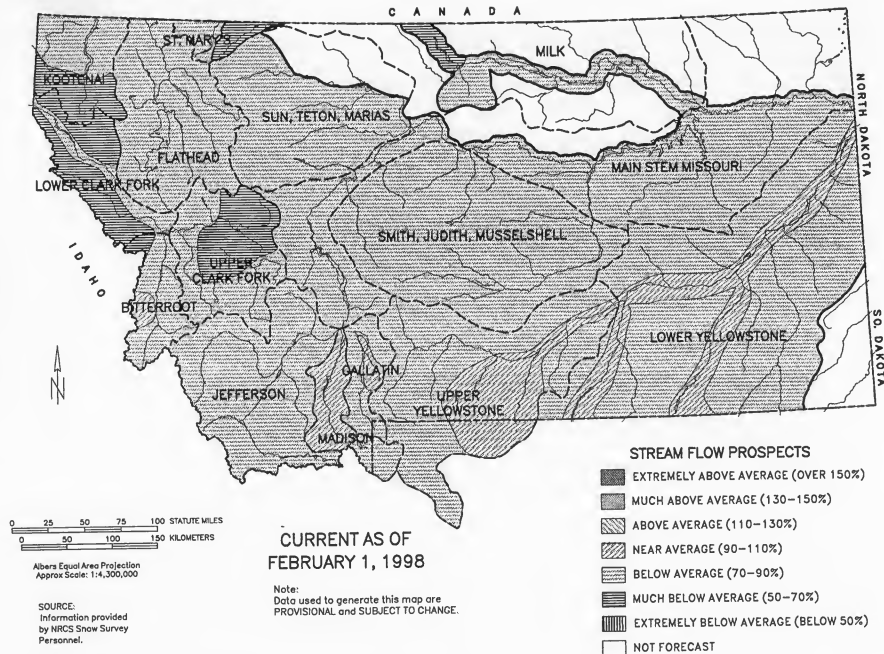
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MOUNTAIN SNOWWATER EQUIVALENT FOR MONTANA



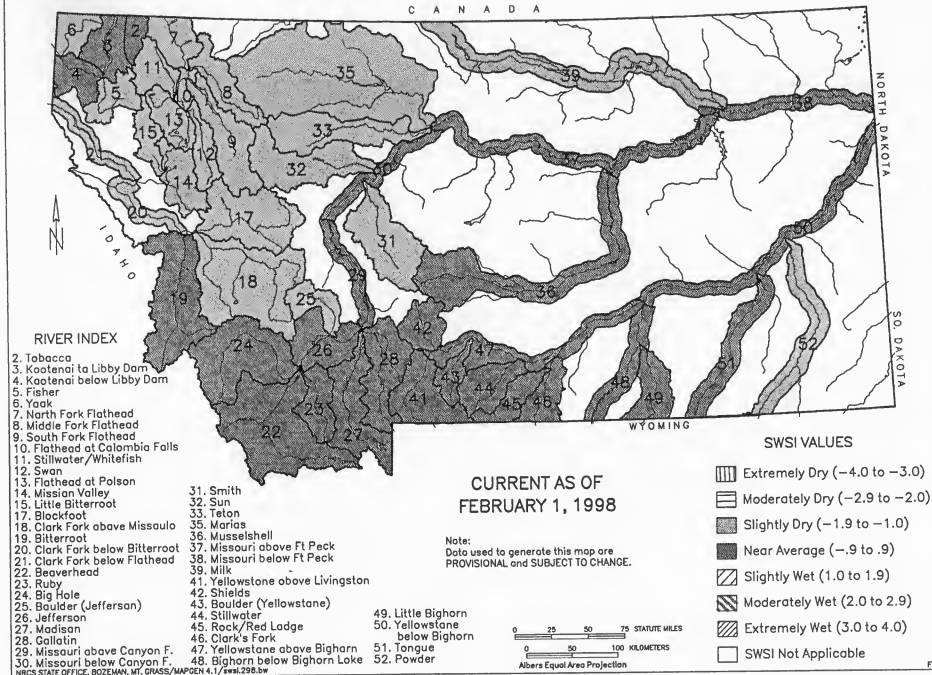
STREAM FLOW PROSPECTS FOR MONTANA

Spring and Summer Period





FEBRUARY 1998





BASIN SUMMARY OF
SNOW COURSE DATA

FEBRUARY 1998

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90

MONTANA						
ABE LINCOLN	4440	1/29/98	40	11.2	23.8	--
ALBRO LAKE PILLOW	8300	2/01/98	---	9.8	21.2	--
ASHLEY LAKE	4000	1/27/98	12	2.7	9.4	3.9
ASHLEY DIVIDE	4820	1/27/98	17	4.0	10.6	5.0
BADGER PASS PILLOW	6900	2/01/98	---	17.3	30.2	22.8
BANFIELD MTN PILLOW	5600	2/01/98	---	10.3	21.3	13.6
BARKER LAKES PILLOW	8250	2/01/98	---	7.9	13.6	9.4
BASIN CREEK PILLOW	7180	2/01/98	---	6.3	7.2	5.0
BASSOO PEAK	5150	1/29/98	21	4.6	14.0	--
BEAGLE SPGS PILLOW	8850	2/01/98	---	5.7	9.8	5.3
BEAVER CREEK PILLOW	7850	2/01/98	---	11.0	23.7	11.6
BISSON CREEK PILLOW	4920	2/01/98	---	6.8	14.5	6.9
BLACK BEAR PILLOW	7950	2/01/98	---	26.5	48.9	24.5
BLACK PINE PILLOW	7100	2/01/98	---	5.7	12.8	8.0
BLACKTAIL	5650	2/01/98	24	5.0	17.6	8.9
BLOODY DICK PILLOW	7550	2/01/98	---	8.3	15.3	8.2
BOULDER MTN PILLOW	7950	2/01/98	---	11.1	20.2	12.8
BOX CANYON PILLOW	6700	2/01/98	---	6.1	12.4	7.0
BOXELDER CREEK	5100	1/30/98	20	4.1	6.1	5.8
BRACKETT CR PILLOW	7320	2/01/98	---	11.8	21.9	12.9
CALVERT CR PILLOW	6430	2/01/98	---	5.3	13.4	6.1
CARROT BASIN PILLOW	9000	2/01/98	---	17.1	32.8	17.3
CHESSMAN RESERVOIR	6200	1/30/98	8	1.5	3.4	2.7
CHICKEN CREEK	4060	1/28/98	41	9.9	21.0	10.9
CLOVER MDW PILLOW	8800	2/01/98	---	11.8	15.9	11.5
COLE CREEK PILLOW	7850	2/01/98	---	8.8	11.1	10.2
COMBINATION PILLOW	5600	2/01/98	---	3.2	6.0	3.8
COPPER BOTTOM PILLOW	5200	2/01/98	---	4.7	14.3	7.4
COPPER CAMP PILLOW	6950	2/01/98	---	14.6	32.2	22.6
COPPER MOUNTAIN	7700	1/29/98	31	7.1	13.5	7.0
COYOTE HILL	4200	1/29/98	26	6.5	14.0	7.5
CREVICE MOUNTAIN	8400	1/27/98	40	9.5	--	--
CRYSTAL LAKE PILLOW	6050	2/01/98	---	5.4	9.8	8.4
DAISY PEAK	7600	1/27/98	22	3.6	8.7	7.0
DAISY PEAK	7600	1/27/98	22	3.6	8.7	7.0
DALY CREEK PILLOW	5780	2/01/98	---	7.9	14.7	7.8
DARKHORSE LK. PILLOW	8700	2/01/98	---	17.9	33.6	22.0
DEADMAN CR PILLOW	6450	2/01/98	---	6.8	10.9	6.7
DEADMAN CREEK	6450	2/03/98	30	6.9	--	--
DISCOVERY BASIN	7050	1/27/98	29	6.2	12.4	6.8
DIVIDE PILLOW	7800	2/01/98	---	6.2	11.3	6.9
DIX HILL	6400	2/01/98	25	6.6	12.6	8.2
DUPUYER CREEK PILLOW	5750	2/01/98	---	2.5	9.4	7.8

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
EMERY CREEK PILLOW	4350	2/01/98	---	7.7	17.6	10.9
FISH CREEK	8000	1/28/98	29	8.0	10.2	6.4
FISHER CREEK PILLOW	9100	2/01/98	---	23.1	43.8	24.2
FLATTOP MTN PILLOW	6300	2/01/98	---	26.9	46.4	32.3
FOURTH OF JULY	3450	1/29/98	20	6.4	13.1	6.4
FROHNER MDWS PILLOW	6480	2/01/98	---	4.0	7.3	5.6
GARVER CREEK PILLOW	4250	2/01/98	---	7.9	13.6	7.3
GRAVE CRK PILLOW	4300	2/01/98	---	10.9	17.4	11.9
GRIFFIN CR DIVIDE	5150	1/29/98	20	4.0	13.0	--
HAND CREEK PILLOW	5030	2/01/98	---	6.4	14.8	8.3
HAWKINS LAKE PILLOW	6450	2/01/98	---	12.9	25.2	19.3
HEBGEN DAM	6550	1/27/98	35	7.9	13.1	8.3
HELL ROARING DIVIDE	5770	1/28/98	54	14.0	28.0	20.5
HERRIG JUNCTION	4850	1/28/98	58	15.5	27.8	16.7
HOLBROOK	4530	1/28/98	22	4.6	14.3	7.2
HOODOO BASIN	6050	1/30/98	94	27.2	49.1	33.4
HOODOO BASIN PILLOW	6050	2/01/98	---	23.6	50.2	31.0
INTERGAARD	6450	1/30/98	23	5.2	9.9	5.2
JOHNSON PARK	6450	1/27/98	17	2.9	5.4	4.8
KIWANIS CAMP	3720	1/30/98	4	.8	2.9	1.6
KRAFT CREEK PILLOW	4750	2/01/98	---	8.6	20.2	11.4
LAKEVIEW RDG. PILLOW	7400	2/01/98	---	5.6	11.3	8.3
LEMHI RIDGE PILLOW	8100	2/01/98	---	7.6	10.6	6.9
LICK CREEK PILLOW	6860	2/01/98	---	6.7	10.9	8.1
LONE MOUNTAIN PILLOW	8880	2/01/98	---	11.7	21.0	11.5
LOWER TWIN PILLOW	7900	2/01/98	---	9.4	20.1	12.3
LUBRECHT PILLOW	4680	2/01/98	---	3.8	8.1	4.5
LUBRECHT FOREST NO 3	5450	2/02/98	13	2.4	9.0	5.0
LUBRECHT FOREST NO 4	4650	2/02/98	6	1.4	6.7	2.7
LUBRECHT FOREST NO 6	4040	2/02/98	5	1.2	7.4	3.2
LUBRECHT HYDROPLOT	4200	2/02/98	13	2.8	8.8	5.4
MADISON PLT PILLOW	7750	2/01/98	---	13.9	31.9	16.1
MANY GLACIER PILLOW	4900	2/01/98	---	9.2	18.1	11.4
MARIAS PASS	5250	1/29/98	32	9.8	23.4	11.2
MAYNARD CREEK	6210	1/28/98	35	7.2	17.3	9.7
MONUMENT PK PILLOW	8850	2/01/98	---	13.7	25.7	13.9
MOSS PEAK PILLOW	6780	2/01/98	---	18.4	44.0	24.4
MT LOCKHART PILLOW	6400	2/01/98	---	12.1	20.1	14.0
MULE CREEK PILLOW	8300	2/01/98	---	9.6	17.2	10.2
NEVADA CREEK PILLOW	6480	2/01/98	---	7.9	15.2	8.6
NEVADA RIDGE PILLOW	7020	2/01/98	---	8.7	14.4	11.1
NEW WORLD	6900	1/28/98	40	9.2	16.6	9.6
NEWTON MOUNTAIN	5600	1/26/98	67	19.5	37.4	22.2
NEZ PERCE CMP PILLOW	5650	2/01/98	---	9.0	16.5	9.8
NEZ PERCE CREEK	6600	1/29/98	20	4.1	10.0	4.5
NOISY BASIN PILLOW	6040	2/01/98	---	22.3	46.8	26.2
N.F. ELK CR PILLOW	6250	2/01/98	---	7.0	13.6	8.1
NF JOCKO PILLOW	6330	2/01/98	---	25.1	44.1	28.6
N.E. ENTRANCE PILLOW	7350	2/01/98	---	5.4	9.3	6.4
OPHIR PARK	7150	2/01/98	32	8.0	15.9	11.2

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
PETERSON MEADOWS	7200	1/27/98	26	5.8	10.2	6.6
PICKFOOT CRK PILLOW	6650	2/01/98	---	5.2	11.7	7.1
PIKE CREEK PILLOW	5930	2/01/98	---	13.4	28.7	17.1
PIPESTONE PASS	7200	1/30/98	14	3.0	6.8	3.3
PLACER BASIN PILLOW	8830	2/01/98	---	10.4	18.8	12.4
PORCUPINE PILLOW	6500	2/01/98	---	5.1	9.7	4.8
RED TOP	5260	1/26/98	58	16.0	28.8	18.4
ROCKER PEAK PILLOW	8000	2/01/98	---	8.8	13.3	9.8
ROCKY BOY PILLOW	4700	2/01/98	---	3.0	4.2	3.6
ROCKY BOY	4700	1/30/98	11	2.1	3.4	3.2
SACAJAWEA	6550	1/28/98	38	9.0	16.8	--
SADDLE MTN PILLOW	7900	2/01/98	---	15.7	28.6	17.0
SHORT CREEK PILLOW	7000	2/01/98	---	4.2	5.2	3.6
SHOWER FALLS PILLOW	8100	2/01/98	---	14.2	22.5	14.8
SILVER RUN PILLOW	6630	2/01/98	---	3.1	4.8	3.6
SKALKAHO PILLOW	7260	2/01/98	---	14.5	28.0	15.8
S.F. SHIELDS PILLOW	8100	2/01/98	---	10.0	21.6	10.7
SPOTTED BEAR MTN.	7000	1/28/98	31	6.8	15.2	10.3
SPUR PARK PILLOW	8100	2/01/98	---	12.6	19.2	14.8
SQUAW PEAK PILLOW	6150	2/01/98	---	8.1	20.0	9.9
STAHL PEAK PILLOW	6030	2/01/98	---	22.2	33.9	23.5
STEMPLE PASS	6600	1/29/98	21	4.1	10.3	--
STORM LAKE	7780	1/27/98	35	8.4	12.9	8.7
STRYKER BASIN	6180	1/28/98	66	18.7	34.6	21.6
STUART MOUNTAIN	7400	1/28/98	59	17.0	37.1	21.2
STUART MOUNTAIN PILL	7400	2/01/98	---	16.3	34.8	20.3
SUCKER CREEK	3960	1/30/98	0	.0	.4	.5
TAYLOR ROAD	4080	1/30/98	13	2.1	3.9	2.9
TEN MILE LOWER	6600	1/30/98	16	3.0	7.2	5.0
TEN MILE MIDDLE	6800	1/30/98	25	5.0	9.7	7.6
TEPEE CREEK PILLOW	8000	2/01/98	---	9.0	14.7	8.6
TIZER BASIN PILLOW	6840	2/01/98	---	6.7	8.2	7.2
TRINKUS LAKE	6100	1/28/98	75	19.8	49.1	25.0
TRUMAN CREEK	4060	1/27/98	9	2.0	8.4	3.2
TV MOUNTAIN	6800	1/28/98	34	8.0	20.4	12.0
TWELVEMILE PILLOW	5600	2/01/98	---	12.2	20.5	12.5
TWENTY-ONE MILE	7150	1/29/98	38	9.4	20.6	11.7
TWIN LAKES PILLOW	6400	2/01/98	---	24.9	45.7	26.3
UPPER HOLLAND LAKE	6200	1/28/98	73	19.8	34.2	23.4
WALDRON PILLOW	5600	2/01/98	---	5.9	12.7	7.8
WARM SPRINGS PILLOW	7800	2/01/98	---	13.9	21.7	14.1
WEASEL DIVIDE	5450	1/29/98	65	19.2	32.0	21.8
WEST YELLOWSTONE	6700	1/29/98	27	6.4	12.5	7.8
WHISKEY CREEK PILLOW	6800	2/01/98	---	9.5	19.7	11.2
WHITE MILL PILLOW	8700	2/01/98	---	17.5	30.1	16.8
WOOD CREEK PILLOW	5960	2/01/98	---	4.4	11.4	7.1



Montana Water Supply Outlook Report as of February 1, 1998

January storms added much need precipitation across the state and increased the basin snowpack averages, from one month ago, by 10 to 20 percent. A couple good snow storms across the state during February would keep our basin trends improving. Temperatures were generally warmer than normal, with only a couple of cold impulses coming into the state from Canada. The warm temperatures have melted some valley snow and mountain snow on sunny exposures, with mainly settling on other mountain exposures.

Snowpack

As of February 1, mountain snow water content in Montana was 85 percent of average and 51 percent of last year. Low to mid elevations are generally below to well below average and high elevations are below to near average. So far this winter, we are not setting record low snowpacks in spite of the strong El Nino.

With about 40 percent of the normal snow accumulation period remaining, Montana snowpacks are quite variable ranging from well below average to near average. West of the Continental Divide, snow water content was 83 percent of average and 50 percent of last year. East of the Continental Divide, snow water content was 91 percent of average and 56 percent of last year. Extremes show the snowpack the highest in the Clark's Fork-Rock Creek, of the Yellowstone River, and Upper Madison Basins at 96 percent of average and the lowest in the Milk River Basin at 53 percent of average.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	83	50
KOOTENAI	87	56
FLATHEAD	81	49
UPPER CLARK FORK	82	50
BITTERROOT	91	53
LOWER CLARK FORK	78	46
MISSOURI	85	52
MISSOURI HEADWATERS	91	53
JEFFERSON	91	54
MADISON	93	52
GALLATIN	92	52
MISSOURI MAINSTEM	73	52
HEADWATERS MAINSTEM	81	57
SMITH-JUDITH-MUSSELSHELL	77	55
SUN-TETON-MARIAS	74	48
MILK	53	43
ST. MARY	83	56
ST. MARY & MILK	70	51
YELLOWSTONE	98	60
UPPER YELLOWSTONE	94	53
LOWER YELLOWSTONE (WYOMING)	101	66
WIND	108	64
SHOSHONE	103	58
BIGHORN	100	65
TONGUE	94	77
POWDER	89	65

Precipitation

January mountain and valley precipitation across the state was 111 percent of average and 92 percent of last year, while the water year precipitation was 90 percent of average and 58 percent of last year.

West of the Continental Divide, January mountain and valley precipitation was 102 percent of average 95 percent of last year and water year precipitation was 88 percent of average and 56 percent of last year. East of the Divide, January mountain and valley precipitation was 120 percent of average and 90 percent of last year and water year precipitation was 92 percent of average and 59 percent of last year.

RIVER BASIN	JANUARY % OF AVERAGE	WATER YEAR % OF AVERAGE
COLUMBIA	102	88
KOOTENAI	118	90
FLATHEAD	102	86
UPPER CLARK FORK	97	90
BITTERROOT	99	98
LOWER CLARK FORK	96	84
MISSOURI	117	90
JEFFERSON	126	99
MADISON	144	99
GALLATIN	127	87
MISSOURI MAINSTEM	103	88
SMITH-JUDITH-MUSSELSHELL	112	81
SUN-TETON-MARIAS	82	80
MILK	72	74
ST. MARY	112	86
ST. MARY & MILK	99	82
YELLOWSTONE	128	101
UPPER YELLOWSTONE	130	99
LOWER YELLOWSTONE	131	106
WIND	137	102
SHOSHONE	158	116
BIGHORN	106	100
TONGUE	109	112
POWDER	132	111

Reservoirs

Major reservoir storage statewide was 112 percent of average and 114 percent of last year.

Reservoir storage west of the Continental Divide was 112 percent of average and 117 percent of last year. East of the Divide, reservoir storage was 112 percent of average and 109 percent of last year.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	113	117
KOOTENAI	146	139
FLATHEAD	92	102
UPPER CLARK FORK	110	101
BITTERROOT	82	106
LOWER CLARK FORK	91	93
MISSOURI	114	111
JEFFERSON	115	102
MADISON	111	108
GALLATIN	194	101
MISSOURI MAINSTEM	108	111
SMITH-JUDITH-MUSSELSHELL	146	141
SUN-TETON-MARIAS	127	111
MILK	122	105
ST. MARY	116	107
YELLOWSTONE	107	110
UPPER YELLOWSTONE	107	102
LOWER YELLOWSTONE	107	110

Streamflow

Streamflow forecasts across Montana were 80 percent of average and 59 percent of last years forecasts.

West of the Continental Divide, streamflows were forecast to be 83 percent of average and 59 percent of last years forecasts. East of the Divide, streamflows were forecast to be 78 percent of average and 59 percent of last years forecasts.

RIVER BASIN	FORECASTS	
	% OF AVERAGE	% OF LAST YEAR
KOOTENAI	87	73
FLATHEAD	81	61
UPPER CLARK FORK	79	50
BITTERROOT	89	58
LOWER CLARK FORK	80	53
MISSOURI	81	54
JEFFERSON	85	51
MADISON	89	62
GALLATIN	57	85
MAINSTEM MISSOURI	82	48
SMITH-JUDITH-MUSSELSHELL	82	53
SUN-TETON-MARIAS	79	54
MILK	64	51
ST. MARY	81	67
ST. MARY & MILK	72	59
YELLOWSTONE	94	62
UPPER YELLOWSTONE	96	65
LOWER YELLOWSTONE	92	59

NOTE: The FORECAST AS % OF LAST YEAR column above, is this years forecast as a percent of last years forecast, not of what actually occurred.

Surface Water Supply Index

The Surface Water Supply Index (SWSI) is an indicator of surface water supply conditions for the spring and summer months. Water users that rely on mountain precipitation can use the index to evaluate seasonal surface water supplies. The SWSI accounts for mountain snowpack, mountain precipitation, streamflow, reservoir storage, and soil moisture.

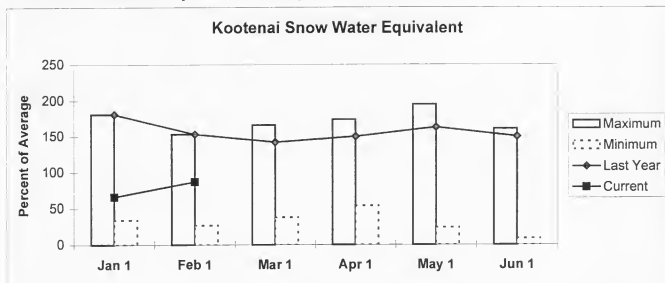
SWSI RATING	SURFACE WATER CONDITION
+3.0 to +4.0	Extremely Wet
+2.0 to +3.0	Moderately Wet
+1.0 to +2.0	Slightly Wet
-1.0 to +1.0	Near Average
-1.0 to -2.0	Slightly Dry
-2.0 to -3.0	Moderately Dry
-3.0 to -4.0	Extremely Dry

SWSI's on February 1, were ranging from +0.7 to -1.8 statewide. West of the divide, SWSI's were ranging from +0.2 to -1.8 and east of the divide from +0.7 to -1.7.

SWSI	Basin
-2.2	Kootenai River at Ft. Steele (Kootenai in Canada)
-0.5	Tobacco River
-0.9	Kootenai Ft. Steele to Libby Dam
+0.2	Kootenai River below Libby Dam
-1.4	Fisher River
-1.8	Yaak River
-1.5	North Fork Flathead River
-1.3	Middle Fork Flathead River
-1.2	South Fork Flathead River
-1.3	Flathead River at Columbia Falls
-1.3	Stillwater/Whitefish Rivers
-1.5	Swan River
-1.5	Flathead River at Polson
-1.4	Mission Valley
-1.2	Little Bitterroot River
-1.7	Clark Fork River above Rock Creek
-1.2	Blackfoot River
-1.2	Clark Fork River above Missoula
-0.5	Bitterroot River
-1.0	Clark Fork River below Bitterroot River
-1.3	Clark Fork River below Flathead River
+0.5	Beaverhead River
+0.5	Ruby River
-0.2	Big Hole River
-1.3	Boulder River (Jefferson)
-0.1	Jefferson River
+0.7	Madison River
+0.3	Gallatin River
+0.2	Missouri River above Canyon Ferry
+0.5	Missouri River below Canyon Ferry
-1.4	Smith River
-1.4	Sun River
-1.5	Teton River
-0.5	Birch/Dupuyer Creeks
-1.4	Marias River
+0.4	Musselshell River
+0.5	Missouri River above Ft. Peck
+0.4	Missouri River below Ft. Peck
-1.7	Milk River
-0.2	Yellowstone River above Livingston
-0.6	Shields River
+0.1	Boulder River (Yellowstone)
-0.7	Stillwater River
-0.2	Rock/Red Lodge Creeks
-0.6	Clarks Fork River
-0.4	Yellowstone River above Bighorn River
+0.7	Bighorn River below Bighorn Lake
-0.8	Little Bighorn River
+0.1	Yellowstone River below Bighorn River
-0.8	Tongue River
-1.0	Powder River

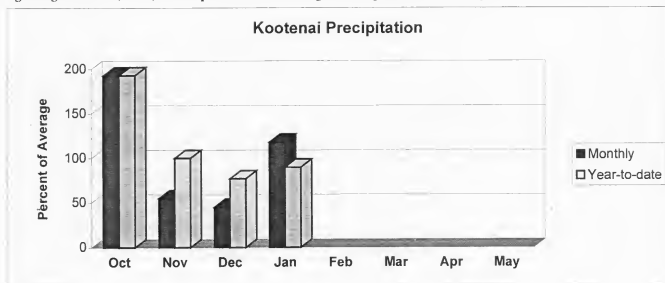
Kootenai River Basin in Montana

Snowpack conditions in the Kootenai River Basin in Montana and Canada were below average. Snow water content for the Kootenai in Montana was 13 percent below average and 44 percent below last year. Snow water content for the Kootenai in Canada was 25 percent below average and 38 percent below last year.



January maximum swe was established in 1997 and minimum was in 1977; February maximum swe was in 1997 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1974 and minimum swe was in 1977; May maximum swe was in 1974 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during January was 19 percent above average and 17 percent above last year. Valley precipitation was 12 percent below average and 56 percent above last year. Water year precipitation for the basin, beginning October 1, 1997, was 10 percent below average and 40 percent below last year.



Lake Koocanusa storage on the last day of January was 46 percent above average and 39 percent above last year.

Streamflows, for the period April through July, are forecast to be 13 percent below average and 27 percent below last years forecasts.

Surface Water Supply Indexes (SWST's) were -2.2 in the Kootenai at Ft. Steele (Kootenai in Canada); -0.5 in the Tobacco River; -0.9 in the Kootenai Ft. Steele to Libby Dam; +0.2 in the Kootenai River below Libby Dam; -1.4 in the Fisher River; and -1.8 in the Yaak River.

KOOTENAI RIVER BASIN in Montana
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance of Exceeding *		30% (1000AF)	10% (1000AF)	
				50% (Most Probable) (1000AF)	(% AVG.)			
TOBACCO RIVER nr Eureka	APR-JUL	74	89	100	75	111	126	133
	APR-SEP	80	98	110	75	122	140	147
LIBBY RES Inflow (1,2)	APR-JUL	3825	4722	5130	89	5538	6435	5779
	APR-SEP	4479	5532	6010	89	6488	7541	6772
FISHER RIVER near Libby	APR-JUL	119	143	160	68	177	201	234
	APR-SEP	128	153	170	68	187	212	250
YAAK RIVER near Troy	APR-JUL	278	321	350	73	379	422	483
	APR-SEP	292	335	365	72	395	438	505
KOOTENAI at Leonia (1,2)	APR-JUL	4681	5815	6330	88	6845	7979	7199
	APR-SEP	5383	6687	7280	88	7873	9177	8275

KOOTENAI RIVER BASIN in Montana Reservoir Storage (1000 AF) - End of January					KOOTENAI RIVER BASIN in Montana Watershed Snowpack Analysis - February 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
	This Year	Last Year	Avg				Last Yr	Average
LAKE KOOCANUSA	5748.0	3468.0	2499.0	2381.0	KOOTENAY in CANADA	20	61	78
					KOOTENAI MAINSTEM	2	57	86
					TOBACCO	3	63	91
					FISHER	1	43	77
					YAAK	5	53	85
					KOOTENAI in MONTANA	11	56	87
					ab BONNERS FERRY	31	59	82

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

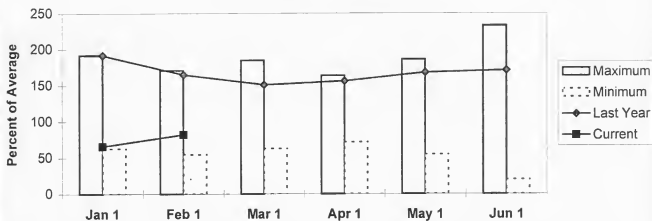
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Flathead River Basin

Snowpack conditions in the Flathead River Basin of Montana and Canada were below average. Snow water content for the Flathead in Montana was 19 percent below average and 51 percent below last year. Snow water content for the North Fork Flathead in Canada was 9 percent below average and 47 percent below last year.

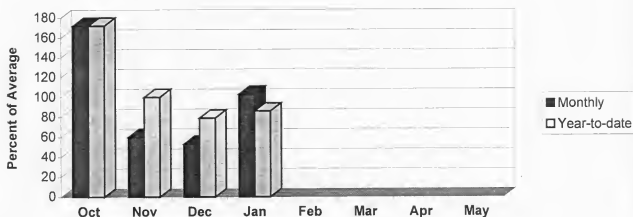
Flathead Snow Water Equivalent



January maximum swe was established in 1997 and minimum was in 1988; February maximum swe was in 1972 and minimum was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum was in 1992; May maximum swe was in 1972 and minimum was in 1992; and June maximum swe was in 1974 and minimum was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during January was 5 percent above average and 2 percent below last year. Valley precipitation during January was 29 percent below average and 18 percent below last year. Water year precipitation for the basin, beginning October 1, 1997, was 14 percent below average and 45 percent below last year.

Flathead Precipitation



Reservoir storage on the last day of January was 8 percent below average and 2 percent above last year. Combined Camas reservoir storage was 71 percent above average and 6 percent above last year; combined Mission Valley reservoir storage was 1 percent below average and 19 percent above last year; Hungry Horse storage was 4 percent above average and 24 percent above last year; and Flathead Lake storage was 38 percent below average and 39 percent below last year.

Streamflows, for the period April through July, are forecast to be 19 percent below average and 39 percent below last years forecasts.

Surface Water Supply Indexes (SWSI's) were -1.5 in the North Fork Flathead River; -1.3 in the Middle Fork Flathead River; -1.2 in the South Fork Flathead River; -1.3 in the Flathead River at Columbia Falls; -1.3 in the Stillwater/Whitefish Rivers; -1.5 in the Swan River; -1.5 in the Flathead River at Polson; -1.4 in the Mission Valley; and -1.2 in the Little Bitterroot River.

FLATHEAD RIVER BASIN
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90%	70%	Chance Of Exceeding *		30%	10%	
		(1000AF)	(1000AF)	50% (Most Probable)	(% AVG.)	(1000AF)	(1000AF)	
NF FLATHEAD nr Columbia Falls	APR-JUL	1134	1251	1330	80	1409	1526	1662
	APR-SEP	1260	1385	1470	80	1555	1680	1836
MF FLATHEAD nr West Glacier	APR-JUL	1085	1231	1330	81	1429	1575	1638
	APR-SEP	1187	1344	1450	81	1556	1713	1788
HUNGRY HORSE Reservoir Inflow (1,2)	APR-JUL	1294	1560	1680	82	1800	2066	2051
	APR-SEP	1382	1663	1790	82	1917	2198	2184
FLATHEAD at Columbia Falls (2)	APR-JUL	3659	4124	4440	81	4756	5221	5482
	APR-SEP	3987	4489	4830	81	5171	5673	5960
STILLWATER nr Whitefish	APR-JUL	96	122	140	74	158	184	189
	APR-SEP	107	135	155	74	175	203	209
WHITEFISH nr Kalispell	APR-JUL	55	67	75	72	83	95	104
	APR-SEP	60	74	83	72	92	106	116
SWAN RIVER near Bigfork	APR-JUL	370	429	470	81	511	570	583
	APR-SEP	413	483	530	80	577	647	665
FLATHEAD Lake Inflow (1,2)	APR-JUL	3981	4826	5210	82	5594	6439	6390
	APR-SEP	4316	5233	5650	82	6067	6984	6926

FLATHEAD RIVER BASIN Reservoir Storage (1000 AF) - End of January					FLATHEAD RIVER BASIN Watershed Snowpack Analysis - February 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CANAS (4)	45.2	33.2	31.3	19.4	NF FLATHEAD in CANADA	3	51	87
MISSION VALLEY (8)	100.0	35.9	30.2	36.2	NF FLATHEAD in MT.	7	58	85
HUNGRY HORSE	3451.0	2468.0	1984.0	2362.0	MIDDLE FORK FLATHEAD	5	51	80
FLATHEAD LAKE	1791.0	682.4	1124.0	1095.0	SOUTH FORK FLATHEAD	6	46	79
					STILLWATER-WHITEFISH	7	49	82
					SWAN	6	48	82
					MISSION VALLEY	3	40	75
					LITTLE BITTERROOT-ASHLEY	4	30	65
					JOCKO	4	48	81
					FLATHEAD in MONTANA	30	49	81
					FLATHEAD BASIN	33	49	82

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

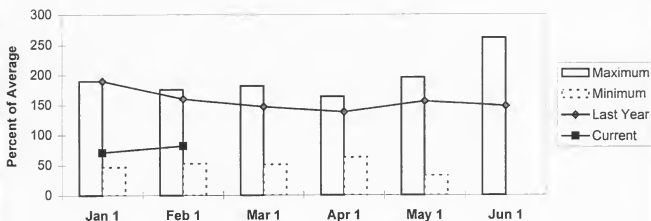
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Upper Clark Fork River Basin

Snowpack conditions in the Upper Clark Fork River Basin were below average. Snow water content was 18 percent below average and 50 percent below last year.

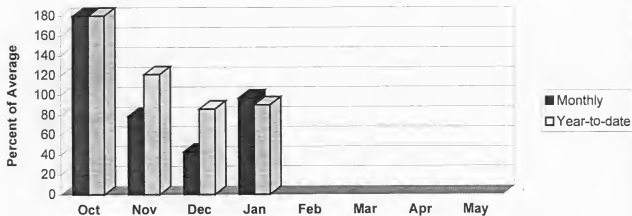
Upper Clark Fork Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum was in 1994; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1975 and minimum swe was in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during January was 2 percent below average and 13 percent below last year. Valley precipitation during January was 14 percent below average and 36 percent below last year. Water year precipitation for the basin, beginning October 1, 1997, was 10 percent below average and 43 percent below last year.

Upper Clark Fork Precipitation



Reservoir storage on the last day of January was 10 percent above average and 1 percent above last year.

Georgetown Lake storage was 3 percent above average and 6 percent below last year; Lower Willow Creek storage was 33 percent above average and 25 percent above last year; and Nevada Creek storage was 51 percent above average and 30 percent above last year.

Streamflows, for the period April through July, are forecast to be 21 percent below average and 50 percent below last years forecasts.

Surface Water Supply Indexes (SWSI's) were -1.7 in the Clark Fork River above Rock Creek; -1.2 in the Blackfoot River; and -1.2 in the Clark Fork River above Missoula.

UPPER CLARK FORK RIVER BASIN
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *		Chance Of Exceeding *		Chance Of Exceeding *		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
WARM SPRINGS CK at Anaconda (2)	APR-JUL	23	30	35	92	40	47	38
	APR-SEP	30	38	43	92	49	57	47
LITTLE BLACKFOOT nr Garrison	APR-JUL	11.3	41	61	74	81	111	83
	APR-SEP	14.0	46	67	75	88	120	89
FLINT CK nr Southern Cross (2)	APR-JUL	5.5	9.4	12.0	85	14.6	18.5	14.2
	APR-SEP	5.8	10.7	14.0	84	17.3	22	16.7
FLINT CK bl Boulder Ck	APR-JUL	19.0	33	43	75	53	67	57
	APR-SEP	27	44	56	77	68	85	73
LOWER WILLOW CK RES Inflow	APR-JUL	3.2	7.1	9.8	70	12.5	16.4	14.0
	APR-SEP	3.5	7.5	10.3	70	13.1	17.1	14.8
MF ROCK CREEK nr Philipsburg	APR-JUL	36	47	55	83	63	74	66
	APR-SEP	41	54	62	84	70	83	74
ROCK CREEK near Clinton	APR-JUL	139	193	230	78	267	321	296
	APR-SEP	164	224	265	80	306	366	333
NEVADA CREEK near Finn	APR-JUL	6.0	10.2	13.0	68	15.8	20	19.1
	APR-SEP	6.6	11.0	14.0	67	17.0	21	21
CLEARWATER nr Clearwater	APR-JUL	113	129	140	81	151	167	172
	APR-SEP	122	139	150	83	161	178	181
BLACKFOOT RIVER near Bonner	APR-JUL	442	551	625	75	699	808	835
	APR-SEP	496	615	695	75	775	894	926
CLARK FORK ab Milltown	APR-JUL	294	447	550	84	653	806	652
	APR-SEP	358	526	640	85	754	922	755
CLARK FORK ab Missoula	APR-JUL	807	1035	1190	80	1345	1573	1487
	APR-SEP	923	1171	1340	80	1509	1757	1681

UPPER CLARK FORK RIVER BASIN
Reservoir Storage (1000 AF) - End of January

UPPER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - February 1, 1998

Reservoir	Usable Capacity *** Usable Storage ***				Watershed	Number of Data Sites	This Year as % of	
	Year	This Year	Last Year	Avg			Last Yr	Average
GEORGETOWN LAKE	31.0	27.7	29.4	27.0	CLARK FORK ab FLINT CRK	11	56	85
LOWER WILLOW CREEK	4.9	2.0	1.6	1.5	FLINT CREEK	6	54	88
NEVADA CREEK	12.6	6.5	5.0	4.3	ROCK CREEK	3	56	92
					CLARK FORK ab BLACKFOOT	17	54	86
					BLACKFOOT	15	47	76
					UPPER CLARK FORK BASIN	29	50	81

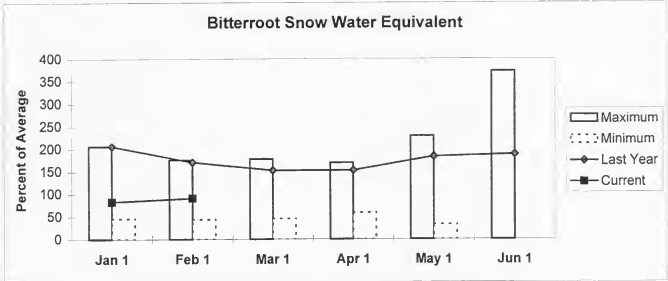
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

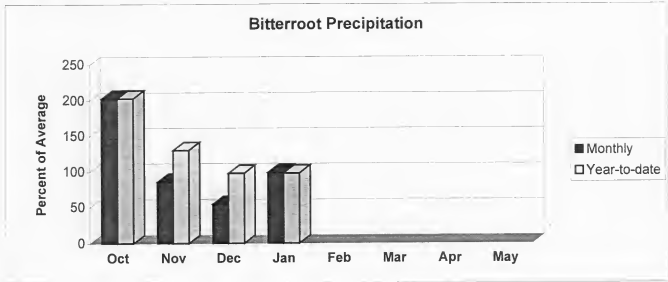
Bitterroot River Basin

Snowpack conditions in the Bitterroot River Basin were below average. Snow water content was 9 percent below average and 47 percent below last year.



January maximum swe was established in 1997 and minimum swe in 1977; February maximum swe was in 1972 and minimum was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1977; May maximum swe was in 1972 and minimum swe was in 1987; and June maximum swe was 1972 and 1974 and minimum swe was in 1987 and 1992. Average is for the period 1961 through 1990.

Mountain precipitation during January was 2 percent below average and 17 percent below last year. Valley precipitation during January was 1 percent above average and 13 percent below last year. Water year precipitation for the basin, beginning October 1, 1997, was 2 percent below average and 40 percent below last year.



Reservoir storage on the last day of January was 18 percent below average and 6 percent above last year. Painted Rocks Lake storage was 73 percent below average and 39 percent below last year; Como storage was 46 percent above average and 26 percent above last year.

Streamflows, for the period April through July, are forecast to be 11 percent below average and 42 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -0.5 in the Bitterroot River.

BITTERROOT RIVER BASIN
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		>>===== Wetter =====>>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
WF BITTERROOT nr Conner (2)	APR-JUL	88	113	130	86	147	172	152
	APR-SEP	101	127	145	87	163	189	166
BITTERROOT nr Darby	APR-JUL	327	397	445	91	493	563	491
	APR-SEP	369	441	490	91	539	611	540
ROCK CK nr Darby (2)	APR-JUL	58	67	72	91	78	86	79
	APR-SEP	61	69	75	90	81	89	83
SKALKAHO CK nr Hamilton	APR-JUL	28	34	38	83	42	48	46
	APR-SEP	33	39	44	83	49	55	53
BURNT FORK CK nr Stevensville (2)	APR-JUL	16.3	21	24	83	27	32	29
	APR-SEP	19.1	24	28	82	32	37	34
BITTERROOT at Missoula	APR-JUL	890	1045	1150	88	1255	1410	1301
	APR-SEP	976	1139	1250	88	1361	1524	1418

BITTERROOT RIVER BASIN					BITTERROOT RIVER BASIN			
Reservoir Storage (1000 AF) - End of January					Watershed Snowpack Analysis - February 1, 1998			
Reservoir	Usable Capacity	*** This Year	Usable Storage Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of	
							Last Yr	Average
PAINTED ROCKS LAKE	31.7	3.4	5.6	12.7	WEST FORK BITTERROOT	2	55	92
CONO	34.9	16.2	12.9	11.1	EAST SIDE BITTERROOT	3	53	94
					WEST SIDE BITTERROOT	3	52	89
					BITTERROOT BASIN	7	53	91

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

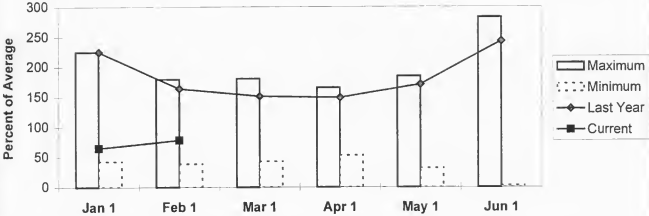
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Lower Clark Fork River Basin

Snowpack conditions in the Lower Clark Fork River Basin were below average. Snow water content was 22 percent below average and 54 percent below last year. This is the fifth lowest February 1 of record.

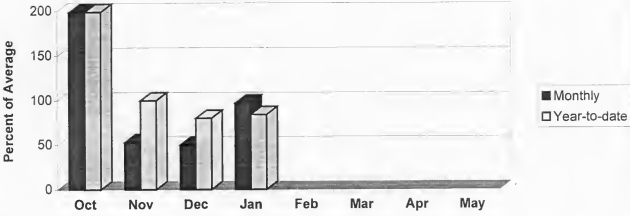
Lower Clark Fork Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum swe was in 1981; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1977. Average is for the period 1961 through 1990.

Mountain precipitation during January was 2 percent below average and 10 percent above last year. Valley precipitation during January was 11 percent below average and 18 percent below last year. Water year precipitation for the basin, beginning October 1, 1997, was 16 percent below average and 46 percent below last year.

Lower Clark Fork Precipitation



Noxon Rapids storage on the last day of January was 9 percent below average and 7 percent below last year.

Streamflows, for the period April through July, are forecast to be 20 percent below average and 47 percent below last years forecasts.

Surface Water Supply Indexes (SWSI's) were -1.0 in the Clark Fork River below Bitterroot River and -1.3 in the Clark Fork River below Flathead River.

LOWER CLARK FORK RIVER BASIN
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
CLARK FORK ab Missoula	APR-JUL	807	1035	1190	80	1345	1573	1487
	APR-SEP	923	1171	1340	80	1509	1757	1661
CLARK FORK bl Missoula	APR-JUL	1740	2092	2330	84	2568	2920	2788
	APR-SEP	1954	2333	2590	84	2847	3226	3099
CLARK FORK at St. Regis (1)	APR-JUL	1565	2586	3050	83	3514	4535	3686
	APR-SEP	1741	2875	3390	83	3905	5039	4095
CLARK FORK nr Plains (1,2)	APR-JUL	5391	7453	8390	80	9327	11389	10450
	APR-SEP	5923	8190	9220	80	10250	12517	11470
THOMPSON RIVER nr Thompson Falls	APR-JUL	90	123	145	68	167	200	214
	APR-SEP	106	141	165	69	189	224	240
PROSPECT CREEK at Thompson Falls	APR-JUL	56	72	83	68	94	110	123
	APR-SEP	62	79	90	68	101	118	132
CLARK FK at Whitehorse Rpds (1,2)	APR-JUL	5742	8106	9180	78	10254	12618	11730
	APR-SEP	6317	8919	10100	78	11281	13883	12910

LOWER CLARK FORK RIVER BASIN Reservoir Storage (1000 AF) - End of January					LOWER CLARK FORK RIVER BASIN Watershed Snowpack Analysis - February 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
NOXON RAPIDS	335.0	285.7	307.9	314.2	LOWER CLARK FORK	7	46	78
					CLARK FORK BASIN	35	49	80
					CLARK FK ab PEND ORIELLE	69	50	82
					COLUMBIA in MONTANA	73	50	82
					COLUMBIA RIVER BASIN	95	52	82

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

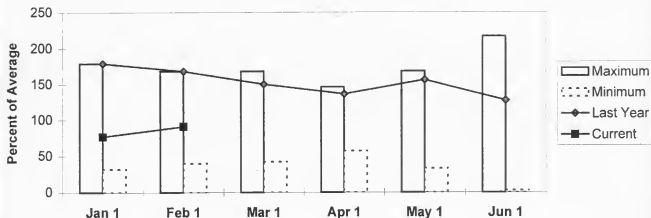
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Jefferson River Basin

Snowpack conditions in the Jefferson River Basin were below average. Snow water content was 9 percent below average and 46 percent below last year.

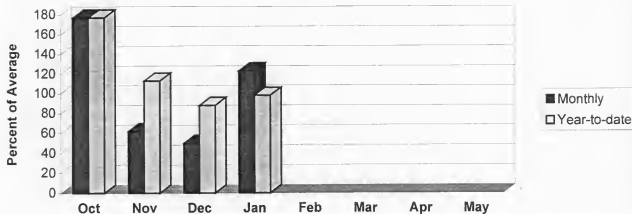
Jefferson Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1997 and minimum was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum was in 1977; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during January was 22 percent above average and 14 percent below last year. Valley precipitation during January was 80 percent above average and 14 percent below last year. Water year precipitation for the basin, beginning October 1, 1997, was 1 percent below average and 38 percent below last year.

Jefferson Precipitation



Reservoir storage on the last day of January was 15 percent above average and 2 percent above last year. Lima storage was 28 percent above average and 9 percent below last year; Clark Canyon storage was 10 percent above average and 1 percent above last year; and Ruby River storage was 24 percent above average and 24 percent above last year.

Streamflows, for the period April through July, are forecast to be 15 percent below average and 49 percent below last years forecasts.

Surface Water Supply Indexes (SWSI's) were +0.5 in the Beaverhead River; +0.5 in the Ruby River; -0.2 in the Big Hole River; -1.3 in the Boulder River; and -0.1 for the Jefferson River as a whole.

JEFFERSON RIVER BASIN
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
RED ROCK RIVER near Monida (2)	APR-JUL	47	67	80	83	93	113	97
	APR-SEP	47	71	87	83	103	127	105
BEAVERHEAD RIVER near Grant (2)	APR-JUL	62	90	110	83	130	158	132
	APR-SEP	68	105	130	84	155	192	155
BEAVERHEAD RIVER at Barretts (2)	APR-JUL	93	124	145	84	166	197	172
	APR-SEP	113	147	170	84	193	227	203
RUBY RIVER near Alder	APR-JUL	44	62	74	89	86	104	83
	APR-SEP	55	76	90	91	104	125	99
BIG HOLE RIVER near Melrose	APR-JUL	302	435	525	82	615	748	641
	APR-SEP	340	480	575	83	670	810	697
BOULDER RIVER near Boulder	APR-JUL	35	57	72	85	87	109	85
	APR-SEP	39	62	77	85	92	115	91
WILLOW CREEK near Harrison	APR-JUL	3.7	10.8	15.6	88	20	28	17.7
	APR-SEP	3.6	11.9	17.5	88	23	31	20
JEFFERSON RIVER near Three Forks (2)	APR-JUL	462	663	800	81	937	1138	985
	APR-SEP	447	663	810	80	957	1173	1012

JEFFERSON RIVER BASIN Reservoir Storage (1000 AF) - End of January					JEFFERSON RIVER BASIN Watershed Snowpack Analysis - February 1, 1998			
Reservoir	Usable Capacity	*** This Year	Usable Storage Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of	
							Last Yr	Average
LIMA	84.0	42.8	46.9	33.4	BEAVERHEAD	8	51	90
CLARK CANYON	255.6	159.1	156.8	144.7	RUBY	4	60	92
RUBY RIVER	38.8	29.4	23.8	23.8	BIGHOLE	10	56	93
					BOULDER	8	54	89
					JEFFERSON RIVER BASIN	25	54	91

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

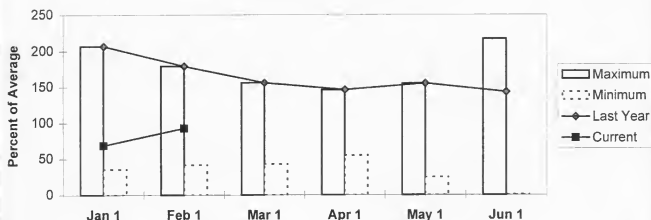
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Madison River Basin

Snowpack conditions in the Madison River Basin were near average. Snow water content was 7 percent below average and 48 percent below last year.

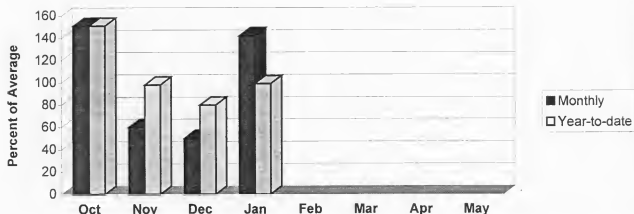
Madison Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1997 and minimum was in 1977; March maximum swe was in 1997 and minimum was in 1977; April maximum swe was in 1997 and minimum was in 1977; May maximum swe was in 1997 and minimum was in 1977; and June maximum swe was in 1995 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain and valley precipitation during January was 41 percent above average and 10 percent below last year. Water year precipitation for the basin, beginning October 1, 1997, was 1 percent below average and 44 percent below last year.

Madison Precipitation



Reservoir storage on the last day of January was 10 percent above average and 8 percent above last year. Ennis Lake storage was 13 percent below average and 2 percent above last year and Hebgen Lake storage was 14 percent above average and 8 percent above last year.

Streamflows, for the period April through July, are forecast to be 11 percent below average and 38 percent below last years forecasts.

Surface Water Supply Index (SWSI) was +0.7 for the Madison River.

MADISON RIVER BASIN
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
MADISON RIVER near Grayling (2)	APR-JUL	265	304	330	87	356	395	380
	APR-SEP	351	398	430	89	462	509	486
MADISON RIVER near McAllister (2)	APR-JUL	483	553	600	91	647	717	662
	APR-SEP	626	703	755	91	807	884	831

MADISON RIVER BASIN					MADISON RIVER BASIN			
Reservoir Storage (1000 AF) - End of January					Watershed Snowpack Analysis - February 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ENNIS LAKE	41.0	29.5	28.9	34.0	MADISON abv HEBGEN LAKE	6	49	90
HEBGEN LAKE	377.5	280.2	259.1	246.8	MADISON b/w HEBGEN LAKE	7	55	96
					MADISON RIVER BASIN	13	52	93

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

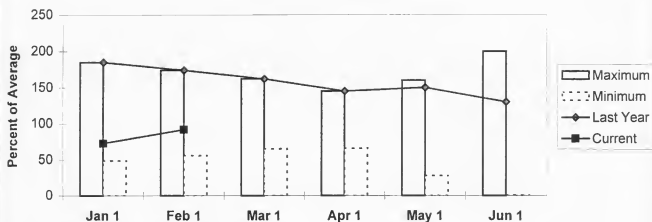
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Gallatin River Basin

Snowpack conditions in the Gallatin River Basin were near average. Snow water content was 8 percent below average and 48 percent below last year.

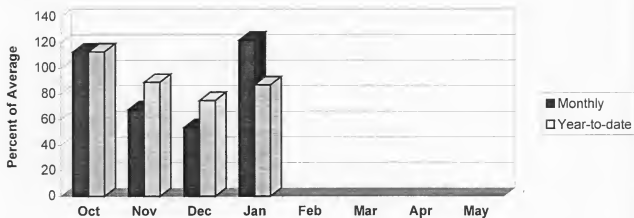
Gallatin Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1966; February maximum swe was in 1997 and minimum was in 1981; March maximum swe was in 1997 and minimum was in 1977 and 1987; April maximum swe was in 1997 and minimum was in 1987; May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1975 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during January was 29 percent above average and 21 percent below last year. Valley precipitation during January was 10 percent above average and 51 percent below last year. Water year precipitation for the basin, beginning October 1, 1997, was 11 percent below average and 47 percent below last year.

Gallatin Precipitation



Middle Creek storage on the last day of January was 94 percent above average and 1 percent above last year.

Streamflows, for the period April through July, are forecast to be 15 percent below average and 43 percent below last years forecasts.

Surface Water Supply Index (SWSI) was +0.3 for the Gallatin River.

GALLATIN RIVER BASIN
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		>>----- Wetter ----->>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
GALLATIN RIVER near Gateway	APR-JUL	294	342	375	85	408	456	441
	APR-SEP	357	409	445	86	481	533	518
E & W FK HYALITE CREEK near Bozeman	APR-JUL	15.5	18.8	21	91	23	27	23
	APR-SEP	18.2	22	24	92	26	30	26
HYALITE CREEK nr Bozeman (2)	APR-JUL	24	29	33	92	37	42	36
	APR-SEP	29	35	39	93	43	49	42
GALLATIN RIVER at Logan (2)	APR-JUL	278	363	420	84	477	562	498
	APR-SEP	353	440	500	86	560	647	581

GALLATIN RIVER BASIN					GALLATIN RIVER BASIN			
Reservoir Storage (1000 AF) - End of January					Watershed Snowpack Analysis - February 1, 1998			
Reservoir	Usable Capacity	*** This Year	Usable Storage Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr	
							Last Yr	Average
MIDDLE CREEK	10.2	7.0	6.9	3.6	UPPER GALLATIN	4	50	94
					HYALITE	3	60	93
					BRIDGER	2	48	84
					GALLATIN RIVER BASIN	9	52	92
					MISSOURI HEADWATERS	41	53	91

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

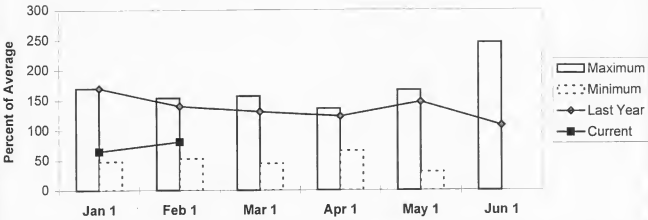
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Missouri Mainstem River Basin

Snowpack conditions for the Missouri Mainstem River Basin were below average. Snow water content was 27 percent below average and 48 percent below last year. Snow water content in the Headwaters Mainstem was 19 percent below average and 43 percent below last year; the Sun-Teton-Marias was 26 percent below average and 52 percent below last year; and the Smith-Judith-Musselshell was 23 percent below average and 45 percent below last year.

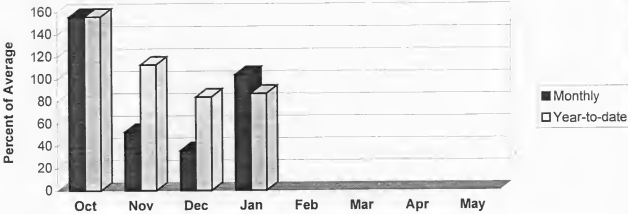
Headwaters Mainstem Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1961; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during January was 12 percent above average and 24 percent above last year. Valley precipitation during January was 27 percent below average and 28 percent above last year. Water year precipitation for the basin, beginning October 1, 1997, was 12 percent below average and 31 percent below last year.

Headwaters Mainstem Precipitation



Reservoir storage on the last day of January was 8 percent above average and 11 percent above last year. Canyon Ferry Lake storage was 8 percent above average and 13 percent above last year; Helena Valley storage was 4 percent below average and 6 percent below last year; Lake Helena storage was 6 percent above average and 2 percent below last year; Hauser & Helena storage was 3 percent above average and the same as last year; Holter Lake storage was 11 percent above average and the same as last year; and Fort Peck Lake storage was 2 percent above average and 1 percent below last year.

Streamflows, for the period April through July, are forecast to be 18 percent below average 52 percent below last years forecasts.

Surface Water Supply Indexes (SWSI's) were +0.2 in the Missouri River above Canyon Ferry; +0.5 in the Missouri River below Canyon Ferry; +0.5 in the Missouri River above Fort Peck; and +0.4 in the Missouri River below Fort Peck.

MISSOURI MAINSTEM RIVER BASIN
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		Wetter =====>>		30-Yr Avg. (1000AF)
		90%	70%	Chance Of Exceeding *		30%	10%	
		(1000AF)	(1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	(1000AF)	(1000AF)	
MISSOURI RIVER at Toston (2)	APR-JUL	1005	1470	1785	86	2100	2565	2075
	APR-SEP	1425	1736	2070	86	2404	2730	2416
PRICKLY PEAR CREEK near Clancy	APR-JUL	4.2	13.9	21	89	27	37	23
	APR-SEP	5.6	16.6	24	89	31	42	27
SUN RIVER at Gibson Dam (2)	APR-JUL	251	331	385	81	439	519	478
	APR-SEP	284	368	425	81	482	566	526
MISSOURI RIVER at Fort Benton (2)	APR-JUL	1270	2041	2565	83	3089	3860	3087
	APR-SEP	1839	2499	3050	83	3601	4266	3678
MARIAS RIVER near Shelby (2)	APR-JUL	151	258	330	74	402	509	447
	APR-SEP	229	276	350	72	424	711	487
MISSOURI RIVER at Virgelle (2)	APR-JUL	1765	2450	2915	81	3380	4065	3595
	APR-SEP	2024	2956	3410	81	3864	5103	4217
MISSOURI RIVER near Landusky (2)	APR-JUL	2222	2804	3200	82	3596	4178	3897
	APR-SEP	2198	3400	3770	82	4140	5725	4580
MISSOURI RIVER below Fort Peck (2)	APR-JUL	2016	2706	3175	79	3644	4334	4015
	APR-SEP	1965	3081	3530	79	3979	5494	4467
LAKE SAKAKAWEA Inflow (2)	APR-JUL	5701	7552	8810	89	10068	11919	9897
	APR-SEP	6581	8572	10100	89	11628	13956	11346

MISSOURI MAINSTEM RIVER BASIN Reservoir Storage (1000 AF) - End of January					MISSOURI MAINSTEM RIVER BASIN Watershed Snowpack Analysis - February 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CANYON FERRY LAKE	2043.0	1719.0	1528.0	1596.0	MISSOURI MAINSTEM	9	57	81
HELENA VALLEY	9.2	4.5	4.8	4.7	SMITH-JUDITH-MUSSELSHELL	9	55	77
LAKE HELENA	10.4	10.9	11.1	10.3	SUN-TETON-MARIAS	7	48	74
HAUSER & HELENA	61.9	63.1	63.2	61.3	MISSOURI abv FT PECK	24	53	77
HOLTER LAKE	81.9	81.1	81.2	72.9	MILK RIVER BASIN	12	43	54
FORT PECK LAKE (MAF)	18.9	15.2	15.3	14.9	MISSOURI MAINSTEM BASIN	35	52	73

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

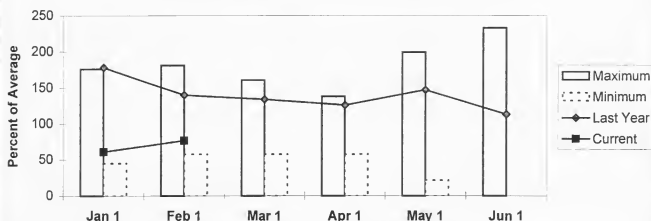
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Smith-Judith-Musselshell River Basins

Snowpack conditions in the Smith-Judith-Musselshell River Basins were below average. Snow water content in the Smith River Basin was 14 percent below average and 42 percent below last year; in the Judith River Basin was 26 percent below average and 42 percent below last year; and in the Musselshell River Basin was 33 percent below average and 50 percent below last year.

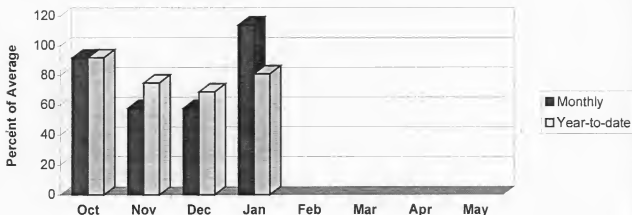
Smith-Judith-Musselshell Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe in 1988; February maximum swe was in 1987; March maximum swe was in 1978 and minimum swe was in 1987; April maximum swe was in 1970 and minimum swe was in 1992; and May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation in the Smith River Basin during January was 28 percent above average and 29 percent above last year; the Judith River Basin during January was 7 percent below average and the same as last year; and the Musselshell River Basin during January was 50 percent above average and 54 percent above last year. Water year precipitation, beginning October 1, 1997, in the Smith-Judith-Musselshell River Basins was 19 percent below average and 42 percent below last year.

Smith-Judith-Musselshell Precipitation



Reservoir storage on the last day of January was 46 percent above average and 41 percent above last year. Smith River storage was 35 percent above average and 47 percent above last year; Newlan Creek storage [NO REPORT]; Bair storage was 3 percent above average and 56 percent above last year; Martinsdale storage was 72 percent above average and 60 percent above last year; and Deadman's Basin was 46 percent above average and 36 percent above last year.

Streamflows, for the period April through July, are forecast to be 18 percent below average and 47 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -1.4 in the Smith River and +0.4 in the Musselshell River.

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Streamflow Forecasts - February 1, 1998

		<----- Drier ----->		Future Conditions		>----- Wetter ----->			
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
SHEEP CREEK nr White Sulphur Springs	APR-JUL	10.4	13.2	15.0	83	16.8	19.6	18.1	
	APR-SEP	12.6	15.5	17.5	83	19.5	22	21	
SMITH RIVER b/w Eagle Creek	APR-JUL	41	69	88	85	107	135	103	
	APR-SEP	51	83	105	85	127	159	124	
NF MUSSELSHELL near Delpine	APR-JUL	1.26	2.65	3.60	75	4.55	5.94	4.80	
	APR-SEP	1.57	3.13	4.20	75	5.27	6.83	5.60	
SF MUSSELSHELL abv Martinsdale	APR-JUL	5.8	26	40	77	54	74	52	
	APR-SEP	7.7	29	43	77	57	78	56	

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Reservoir Storage (1000 AF) - End of January

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Watershed Snowpack Analysis - February 1, 1998

Reservoir	*** Usable Storage ***				Watershed	Number of Data Sites	This Year as % of	
	Usable Capacity	This Year	Last Year	Avg			Last Yr	Average
SMITH RIVER	10.6	8.5	5.8	6.3	SMITH	4	58	86
NEMLAN CREEK	NO REPORT				JUDITH	5	58	74
BAIR	7.0	3.9	2.5	3.8	MUSSELSHELL	4	50	67
MARTINSDALE	23.1	15.8	9.9	9.2	SMITH-JUDITH-MUSSELSHELL	9	55	77
DEADMAN'S BASIN	72.2	62.8	46.3	43.0				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

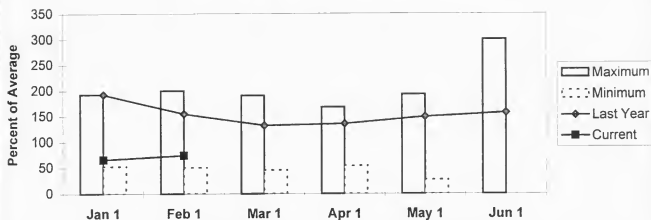
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Sun-Teton-Marias River Basins

Snowpack conditions in the Sun-Teton-Marias River Basins were below average. Snow water content in the Sun River Basin was 22 percent below average and 48 percent below last year; the Teton River Basin was 31 percent below average and 51 percent below last year; and the Marias River Basin was 27 percent below average and 53 percent below last year.

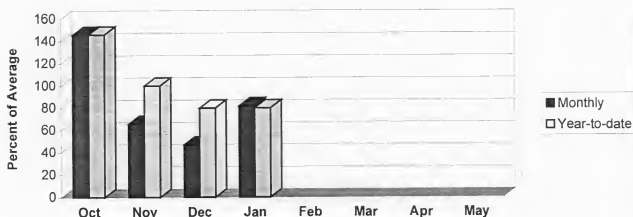
Sun-Teton-Marias Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1984; April maximum swe was in 1972 and minimum swe was in 1984; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation during January in the Sun River Basin was 2 percent above average and 15 percent above last year; the Teton River Basin was 21 percent below average and 2 percent above last year; and the Marias River Basin was 21 percent below average and 3 percent below last year. Water year precipitation for the Sun-Teton-Marias river basins, beginning October 1, 1997, was 20 percent below average and 41 percent below last year.

Sun-Teton-Marias Precipitation



Reservoir storage on the last day of January was 27 percent above average and 11 percent above last year. Gibson storage was 2 percent below average and 23 percent above last year; Pishkun storage was 11 percent above average and 1 percent above last year; Willow Creek storage was 41 percent above average and 360 percent above last year; Lower Two Medicine Lake storage was 78 percent above average and 198 percent above last year; Four Horns Lake storage was 12 percent below average and 11 percent below last year; Swift storage was 8 percent above average and 20 percent above last year; Lake Frances storage was 6 percent above average and 3 percent above last year; and Lake Elwell (Tiber) storage was 32 percent above average and 7 percent above last year.

Streamflows, for the period April through July, are forecast to be 21 percent below average and 46 percent below last years forecasts.

Surface Water Supply Indexes (SWSI's) were -1.4 in the Sun River; -1.5 in the Teton River; -0.5 in the Birch/Dupuyer Creeks; and -1.4 in the Marias River.

SUN-TETON-MARIAS RIVER BASINS
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *		Chance Of Exceeding *		Chance Of Exceeding *		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
SUN RIVER at Gibson Dam (2)	APR-JUL	251	331	385	81	439	519	478
	APR-SEP	284	368	425	81	482	566	526
TWO MEDICINE RIVER near Browning (2)	APR-JUL	93	142	175	81	208	257	215
	APR-SEP	103	152	185	81	218	267	228
BADGER CREEK near Browning (2)	APR-JUL	54	76	90	87	104	126	104
	APR-SEP	67	89	105	88	121	143	120
SWIFT RESERVOIR Inflow near Dupuyer	APR-JUL	34	50	60	88	71	86	68
	APR-SEP	42	59	70	88	81	98	80
DUPUYER CREEK near Valier	APR-JUL	1.5	6.3	12.5	81	18.7	28	15.5
	APR-SEP	1.7	7.5	14.0	81	21	30	17.4
CUT BANK CREEK at Cut Bank	APR-JUL	43	58	68	78	78	94	87
	APR-SEP	51	65	75	78	85	100	96
MARIAS RIVER near Shelby (2)	APR-JUL	151	258	330	74	402	509	447
	APR-SEP	229	276	350	72	424	711	487

SUN-TETON-MARIAS RIVER BASINS Reservoir Storage (1000 AF) - End of January					SUN-TETON-MARIAS RIVER BASINS Watershed Snowpack Analysis - February 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GIBSON	99.1	43.4	35.2	44.2	SUN	2	52	78
PISHKUN	32.0	19.6	19.5	17.7	TETON	3	49	69
WILLOW CREEK	32.2	29.9	6.5	21.2	MARIAS	4	47	73
LOWER TWO MEDICINE LAKE	11.9	11.9	4.0	6.7	SUN-TETON-MARIAS	7	48	74
FOUR HORNS LAKE	19.2	10.9	12.3	12.4				
SWIFT	30.0	16.6	13.8	15.3				
LAKE FRANCES	112.0	73.7	71.3	69.6				
LAKE ELWELL (TIBER)	1347.0	769.6	716.1	583.0				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

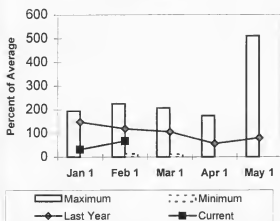
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

St. Mary and Milk River Basins

Snowpack conditions in the St. Mary and Milk River Basins were below average. Snow water content in the St. Mary River Basin was 83 percent below average and 44 percent below last year and in the Milk River Basin (Cypress Hills in Canada and Bearpaw Mountains in Montana) was 47 percent below average and 57 percent below last year.

Bearpaw Mountains Snow Water Equivalent

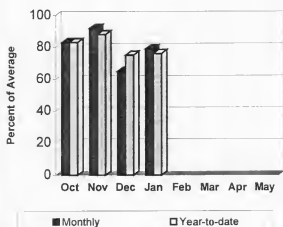


Bearpaw - January maximum swe was established in 1978 and minimum swe was in 1981; February maximum swe was 1978 and minimum was in 1973; March maximum swe was 1978 and minimum swe was 1981; April maximum swe was in 1975 and minimum swe was in 1983; May maximum swe was 1975 and the minimum has occurred in several years. Average is for the period 1961 through 1990.

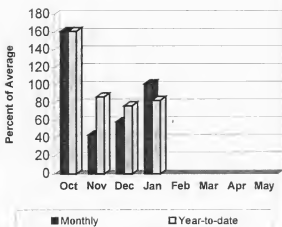
St. Mary - January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1992; May maximum swe was in 1997 and minimum swe was in 1977; and June maximum swe was in 1991 and minimum swe was 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation in the St. Mary River Basin during January was 12 percent above average and 4 percent below last year and the Milk River Basin was 28 percent below average and 17 percent above last year. Water year precipitation for the St. Mary and Milk River Basins, beginning October 1, 1997, was 18 percent below average and 33 percent below last year.

Milk Precipitation



St. Mary Precipitation



Reservoir storage on the last day of January was 14 percent above average and 4 percent above last year. Lake Sherburne storage was 16 percent above average and 7 percent above last year; Fresno storage was 4 percent below average and 22 percent below last year; Beaver Creek storage was 33 percent above average and 17 percent below last year; and Nelson storage was 37 percent above average and 55 percent above last year.

Streamflows, for the period April through July, in the St. Mary are forecast to be 19 percent below average and 33 percent below last years forecasts and for the period March through July in the Milk are forecast to be 36 percent below average and 49 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -1.7 in the Milk River.

ST. MARY and MILK RIVER BASINS
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *		Chance Of Exceeding *		Chance Of Exceeding *		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
SWIFTCURRENT CREEK at Sherburne (2)	APR-JUL	71	81	87	81	93	103	107
	APR-SEP	85	94	100	80	106	115	125
ST. MARY RIVER near Babb	APR-JUL	259	292	315	80	338	371	395
	APR-SEP	315	351	375	81	399	435	463
ST. MARY RIVER at US/CAN Border (2)	APR-JUL	300	348	380	82	412	460	462
	APR-SEP	364	412	445	83	478	526	539
MILK RIVER at Western Crossing	MAR-JUL	11.2	22	29	66	36	47	44
	MAR-SEP	18.4	23	30	65	37	56	46
MILK RIVER at Eastern Crossing (2)	MAR-JUL	4.3	30	48	60	66	92	80
	MAR-SEP	38	55	55	63	73	91	88
BEAVER CREEK near Havre	MAR-JUL	1.0	5.2	8.9	86	12.6	18.0	10.3

ST. MARY and MILK RIVER BASINS					ST. MARY and MILK RIVER BASINS			
Reservoir Storage (1000 AF) - End of January					Watershed Snowpack Analysis - February 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***	This Last Year	Avg	Watershed	Number of Data Sites	This Year as % of	
							Last Yr	Average
LAKE SHERBURNE	64.3	27.9	26.1	24.0	ST. MARY	2	56	83
FRESNO	127.0	49.4	63.3	51.2	BEARPAW MOUNTAINS	6	58	69
BEAVER CREEK	3.5	2.4	2.9	1.8	CYPRESS HILLS, CANADA	6	29	37
NELSON	66.8	49.7	32.1	36.4	MILK RIVER BASIN	11	45	56
					ST. MARY & MILK BASINS	14	51	70

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

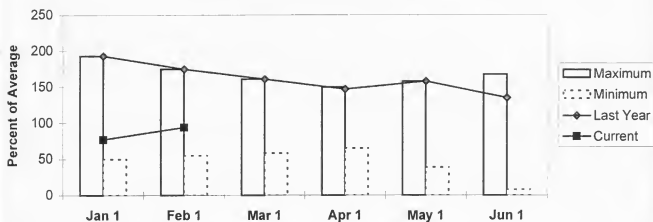
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Upper Yellowstone River Basin

Snowpack conditions in the Upper Yellowstone River Basin were near average. Snow water content was 6 percent below average and 47 percent below last year.

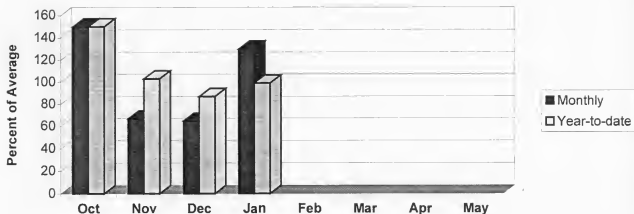
Upper Yellowstone Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1997 and minimum swe was in 1977; March maximum swe was in 1997 and minimum swe was in 1977; April maximum swe was in 1971 and minimum swe was in 1981; May maximum swe was in 1997 and minimum swe was in 1987; and June maximum swe was 1982 and minimum swe was in 1987 and 1994. Average is for the period 1961 through 1990.

Mountain precipitation during January was 31 percent above average and 14 percent below last year. Valley precipitation during January was 20 percent above average and 27 percent below last year. Water year precipitation for the basin, beginning October 1, 1997, was 1 percent below average and 42 percent below last year.

Upper Yellowstone Precipitation



Reservoir storage on the last day of January was 7 percent above average and 2 percent above last year. Mystic Lake storage was 33 percent below average and 2 percent above last year and Cooney storage was 30 percent above average and 3 percent above last year.

Streamflows, for the period April through July, are forecast to be 4 percent below average and 35 percent below last years forecasts.

Surface Water Supply Indexes (SWSI's) were -0.2 in the Yellowstone River above Livingston; -0.6 in the Shields River; +0.1 in the Boulder River; -0.7 in the Stillwater River; -0.2 in the Rock/Red Lodge Creeks; -0.6 in the Clarks Fork River; and -0.4 in the Yellowstone River above Bighorn River.

UPPER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
YELLOWSTONE at Lake Outlet	APR-JUL	386	460	510	89	560	634	573
	APR-SEP	527	624	690	87	756	853	792
YELLOWSTONE RIVER at Corwin Springs	APR-JUL	1185	1313	1400	87	1487	1615	1609
	APR-SEP	1378	1543	1655	85	1767	1932	1937
YELLOWSTONE RIVER near Livingston	APR-JUL	1355	1507	1610	87	1713	1865	1855
	APR-SEP	1622	1803	1925	86	2047	2228	2241
SHIELDS RIVER near Livingston	APR-JUL	88	122	145	90	168	202	162
	APR-SEP	101	136	160	89	184	219	179
BOULDER RIVER at Big Timber	APR-JUL	228	268	295	88	322	362	335
	APR-SEP	247	288	315	87	342	383	364
WEST ROSEBUD CREEK near Roscoe (2)	APR-JUL	45	52	57	93	62	69	61
	APR-SEP	61	69	74	94	79	87	79
STILLWATER RIVER nr Absarokee (2)	APR-JUL	354	435	490	98	545	626	498
	APR-SEP	439	520	575	97	630	711	593
CLARKS FORK RIVER near Belfry	APR-JUL	392	459	505	95	551	618	532
	APR-SEP	440	520	575	98	630	710	590
COONEY RESERVOIR INFLOW (2)	APR-JUL	15.1	33	45	96	57	75	47
	APR-SEP	25	43	55	97	67	85	57
YELLOWSTONE RIVER at Billings (2)	APR-JUL	2473	2959	3290	92	3621	4107	3577
	APR-SEP	3200	3574	3930	93	4286	4632	4211

UPPER YELLOWSTONE RIVER BASIN Reservoir Storage (1000 AF) - End of January					UPPER YELLOWSTONE RIVER BASIN Watershed Snowpack Analysis - February 1, 1998			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
MYSTIC LAKE	21.0	5.7	5.6	8.5	YELLOWSTONE ab LIVINGSTON	14	53	95
COONEY	27.4	19.0	18.5	14.6	SHIELDS	4	48	90
					BOULDER-STILLWATER	3	53	91
					CLARK'S FORK-ROCK CREEK	9	58	96
					UPPER YELLOWSTONE RIVER	26	53	94

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

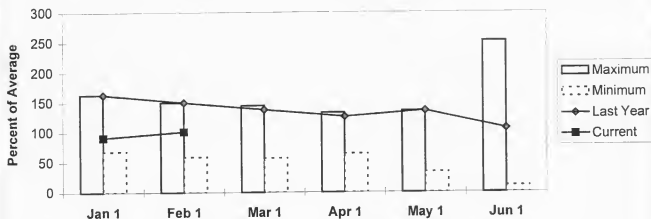
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Lower Yellowstone River Basin

Wyoming snowpack conditions for the Lower Yellowstone River Basin were near average. Snow water content was 1 percent above average and 34 percent below last year.

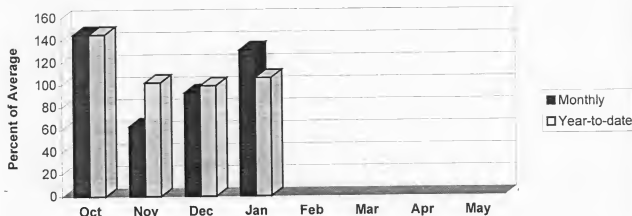
Lower Yellowstone Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1981; February maximum swe was in 1997 and minimum swe was in 1981; March maximum swe was in 1986 and minimum swe was in 1977; April maximum swe was in 1986 and minimum swe was in 1981; May maximum swe was in 1997 and minimum swe was in 1981; and June maximum swe was in 1995 and minimum swe was in 1994. Average is for the period 1961 through 1990.

Mountain and valley precipitation during January was 31 percent above average and 5 percent below last year. Water year precipitation for the basin, beginning October 1, 1997, was 6 percent above average and 27 percent below last year.

Lower Yellowstone Precipitation



Reservoir storage on the last day of January was 7 percent above average and 10 percent above last year. Bighorn Lake storage was 10 percent above average and 12 percent above last year and Tongue River storage was 81 percent below average and 72 percent below last year (this is because of construction on the dam).

Streamflows, for the period April through July, are forecast to be 8 percent below average and 41 percent below last year's forecasts.

Surface Water Supply Indexes (SWSI's) were +0.7 in the Bighorn River below Bighorn Lake; -0.8 in the Little Bighorn River; +0.1 in the Yellowstone River below Bighorn River; -0.8 in the Tongue River; and -1.0 in the Powder River.

LOWER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - February 1, 1998

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding *		30% (1000AF)	10% (1000AF)	
				50% (Most Probable) (1000AF)	(% AVG.)			
YELLOWSTONE RIVER at Billings (2)	APR-JUL	2473	2959	3290	92	3621	4107	3577
	APR-SEP	3200	3574	3930	93	4286	4632	4211
BIGHORN RIVER nr St. Xavier (2)	APR-JUL	891	1263	1515	92	1767	2139	1645
	APR-SEP	1076	1404	1670	93	1936	2207	1794
LITTLE BIGHORN RIVER nr Hardin	APR-JUL	44	86	115	82	144	186	140
	APR-SEP	28	98	130	83	162	223	157
TONGUE RIVER stateline nr Decker (2)	APR-JUL	121	174	210	91	246	299	230
	APR-SEP	110	198	235	92	272	338	256
YELLOWSTONE RIVER at Miles City (2)	APR-JUL	3391	4379	5050	93	5721	6709	5431
	APR-SEP	4271	5075	5840	93	6605	7286	6281
POWDER RIVER at Moorhead	APR-JUL	74	119	150	71	181	226	211
	APR-SEP	51	136	165	71	194	285	232
POWDER RIVER near Locate	APR-JUL	103	152	185	73	218	267	252
	APR-SEP	52	159	201	73	243	356	276
YELLOWSTONE RIVER nr Sidney (2)	APR-JUL	3645	4720	5450	92	6180	7255	5925
	APR-SEP	4429	5448	6296	92	7144	8041	6814

LOWER YELLOWSTONE RIVER BASIN Reservoir Storage (1000 AF) - End of January					LOWER YELLOWSTONE RIVER BASIN Watershed Snowpack Analysis - February 1, 1998			
Reservoir	Usable Capacity	*** This Year	Usable Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of	
							Last Yr	Average
BIGHORN LAKE	1356.0	926.0	826.4	839.2	WIND RIVER (Wyoming)	19	66	111
TONGUE RIVER	68.0	5.1	18.4	27.1	SHOSHONE RIVER (Wyoming)	7	58	103
					BIGHORN RIVER (Wyoming)	20	66	98
					LITTLE BIGHORN (Wyoming)	3	83	97
					TONGUE RIVER (Wyoming)	9	77	94
					POWDER RIVER (Wyoming)	8	66	83
					LOWER YELLOWSTONE RIVER	47	67	101
					YELLOWSTONE BASIN	68	61	98

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.





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Montana
Basin Outlook Report
Natural Resources Conservation Service
Bozeman, MT

